

**COMMENTS**  
**RIVER MILE 10.9**  
**PRE-FINAL DESIGN REPORT**  
**LOWER PASSAIC RIVER STUDY AREA**  
**DATED NOVEMBER 30, 2012**

<b><u>No.</u></b>	<b><u>Worksheet No./</u> <b><u>Page No.</u></b></b>	<b><u>Specific Comments</u></b>
1	Page 1-1	<p>Second paragraph, last line: The date of the Action Memorandum/Enforcement is May 21, 2012. This was correct in the 30% design but now appears incorrectly as June 18, 2012.</p> <p>Third paragraph, first line: Should say "This Pre-Final <u>Design Report</u> is based on ...."</p>
2	Page 1-2	<p>The first sentence, which describes sediments that will be removed, is still missing something. Here is suggested change:</p> <p>"The Action Memorandum/Enforcement (USEPA, 2012b) requires the removal of the highest near-surface and shallow subsurface concentrations of the entire deposit, and <u>defines</u> <del>that</del> the RM 10.9 Removal Area to include that area that is exposed at low tide."</p>
3	Page 2-1, Second paragraph, second line	<p>Please further revise the language in this paragraph as follows, to remove reference to substantive compliance as that concept is incorporated in the ARAR concept:</p> <p>However, pursuant to 40 CFR Section 300.415(j), the removal action <del>shall will</del>, to the extent practicable considering the exigencies of the situation, attain <del>substantive compliance with</del> Applicable or Relevant and Appropriate Requirements (ARARs) under federal environmental or state environmental or facility siting laws.</p>

4	Page 2-3, Section 2.2, Last paragraph	<p>This paragraph may overstate the CWA 404 exemption, which will not apply once the material is beyond the reach of the 404 permit (e.g., being sent to off-site disposal location). Suggested rewrite:</p> <p>Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act (33 U.S.C.1344) or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) is not a hazardous waste. Similarly, dredged material in New Jersey is exempt from being a solid waste when it is regulated under certain statutes, such as the New Jersey Water Pollution Control Act, Waterfront Development Law, Clean Water Act, and Federal Coastal Zone Management Act (CZMA). Contaminated environmental media (e.g., sediment) are not hazardous waste but can become subject to regulation under the Resource Conservation and Recovery Act (RCRA) if they “contain” hazardous waste. USEPA generally considers contaminated environmental media to contain hazardous waste (1) when they exhibit a characteristic of hazardous waste or (2) when they are contaminated with concentrations of hazardous constituents from listed hazardous waste that are above health-based levels. Offsite sediment-processing and disposal facilities must comply with all administrative and substantive aspects of the regulations, including their own permit requirements, and may impose constraints prior to accepting the sediment.</p>
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5	Table 2-2	<p>Page 3 of table. We suggest the following change to the TSCA entry: Applicable. Environmental media containing PCBs may be considered bulk PCB remediation waste. TSCA provides provisions for management of bulk PCB remediation waste at concentrations &lt;50 ppm; certain substantive requirements may be applicable, or approvals from the TSCA regional coordinator may be appropriate. NJDEP was consulted on and agrees with the RM 10.9 Removal Action authorized by the Action Memo. No additional substantive requirements are proposed.</p> <p>Page 4 of table, entry for Subtitle C: Relevant and appropriate. Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act (33 U.S.C.1344) or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) is not a hazardous waste. NJ has delegated authority; refer to the N.J.A.C. 7:26G Hazardous Waste. All administrative and substantive requirements of regulations will be followed for offsite activities. If contaminated sediments exhibit characteristics of hazardous waste (e.g., fail TCLP), they must be managed as a hazardous waste (e.g., treat to stabilize the contaminants and get rid of free liquids) prior to upland disposal.</p> <p>Page 4 of the table, third entry: Same as comment above: the language that cites to the WQC in discussion relating to LDR should be replaced with the following reference:  Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act (33 U.S.C.1344) or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) is not a hazardous waste.</p> <p>Page 5 of table, first entry, please revise to: Not an ARAR for this removal action, as no additional delineation testing of sediment is required. NJDEP was consulted on and agrees with has endorsed the Action Memo for the RM 10.9 Removal Action authorized by the Action Memo. The design will state that bathymetric measurements to confirm the depth of sediment removed, and depth of cap will occur during implementation.</p> <p>Page 5 of table, entry for NJ Dredging Manual: Not promulgated, technical manual prepared pursuant to N.J.S.A. 13:1D-111 to 1D-113 to provide guidance.</p> <p>Page 6 of table, entry for Noise Control regulations, last line: The final design of dredging activities addresses compliance with this regulation.</p>
6	Table 2-3	<p>Entries for Endangered Species Act and NHPA: In 30% Design, these were identified as applicable, not relevant and appropriate. We agree with that designation. Why were these changed to relevant and appropriate?</p> <p>Page 2 of 3, top entry: Note that there may be additional comments on this after consultation with FWS.</p>
7	Tables 2-4 and 2-5	<p>Please clarify whether the requirements identified in these tables apply to the on-site removal activities, or the off-site stabilization facility.</p>

8	Page 3-1, Section 3.2	Did the geotechnical investigation confirm that the underlying sediments have the strength to hold the proposed cap? If the proposed cap were to have a higher specific gravity than the unconsolidated sediments, this could lead to cap failure. Please clarify and revise, as necessary (and where appropriate).
9	Page 3-4, Section 3.6	A contingency plan to protect both the operation and the surrounding area should be prepared in case of significant storm events.
10	Page 3-5, Section 3.7	All navigation routes should be evaluated and tested prior to finalizing the Design.
11	Table 3-2	Please confirm that specific gravity refers to the solid portion of sample only. Please add bulk density and bulk dry density to this table to facilitate calculation of sediment mass and contaminant mass removed based on volume (and concentration for contaminants), respectively.
12	Table 3-4	Please add units to clearance columns (assumed feet).
13	Page 4-1, Section 4.2.2	What contingency is in place in the event the excavator is unable to remove the proposed 4-inch debris? Please clarify and revise, as necessary.
14	Page 4-1, Section 4.2.2	Please describe how the assumption of 5% by volume of debris containing dredged material was derived.
15	Page 4-2, Section 4.2.3	Please describe how delineated utilities will be marked on the river.
16	Page 4-2, Section 4.3.1.1	What is the minimum draft required of the shallow draft vessels?
17	Page 4-2, Section 4.3.1.1	How many moves of the spud barge are anticipated to remove the targeted sediment? Please revise the document, if necessary.
18	Page 4-2, Section 4.3.1.2	Level cuts can only be precisely made on level surfaces. Much of the proposed dredge area is sloped and some is severely sloped. Please clarify how these cuts will be made and revise the text as necessary.
19	Page 4-2, Section 4.3.1.2	Have the results of the geotechnical testing that was conducted on RM 10.9 been incorporated into the design, and when will they be available for review? The text indicates that the sediment will be removed in two to three lifts. After the first lift, the sediment may shift, and the impacts of this should be evaluated prior to finalizing the design.
20	Page 4-2, Section 4.3.1.2	It is anticipated that the volume of water will increase with each lift as the sediments become disturbed. Please clarify the estimated 31 percent and revise the text as necessary.
21	Page 4-2, Section 4.3.1.3	Please describe if the river's seasonal low water levels have also been accounted in anticipated river water depth assumptions, and revise as necessary.
22	Page 4-2, Section 4.3.1.3	Staging will be critical to the success of the project, and it is important to obtain contractor input on the methods and options.
23	Page 4-2, Section 4.3.2	Please describe how the variations in horizontal (+/- 1.0 foot) and vertical (+/- 4 inches) positioning accuracy were derived. A horizontal foot seems excessive and can result in a large change in volume removed.
24	Page 4-2, Section 4.3.2	The accuracies anticipated will be difficult to achieve if there is any outside influences that could impact stability – wind, waves, boat traffic, current, mismatched equipment, etc. Please clarify how excavation barge stability will be achieved and revise as necessary.
25	Page 4-3, Section 4.3.3	Please provide comment on stated 12 hour work day and the impact tides will have on production rate within permissible working hours.

26	Page 4-3, Table 4-1	Please include movement of the spud barge as a dredge production rate parameter. Revise as necessary.
27	Page 4-4, Section 4.3.4, 3rd paragraph	Please describe what Quality Control procedures the dredge operator will follow to match removal of sediment target depth.
28	Page 4-4, Section 4.3.4, 3rd paragraph	Please describe procedures to manage containerizing excess water (or include reference to where in the report this is described).
29	Page 4-5, Section 4.3.7	Please clarify if it is intended that one of the 6 working days will be reserved for maintenance or the 7 <sup>th</sup> day will be used for that purpose. Revise as necessary.
30	Page 4-5, Section 4.4.1, bullet 1	Identify the proposed construction timeframe (months) when river velocity is at 0.82 ft/sec. Will river velocity be monitored and dredging operations suspended if river velocity increases? Please clarify and revise, as necessary.
31	Page 4-5, Section 4.4.1, bullet 2	Please comment on impact to dredging operations if average bathymetry is greater than 4 ft and revise as necessary.
32	Page 4-5	The last sentence of first paragraph says that "The contractor will be responsible for notifying Newark, Port Authority, USACE, and other affected parties." Please revise this to say that "the CPG, through its contractor, will be responsible...." Also, there should be a comma after Newark.
33	Page 4-7, Section 4.4.4	Please provide more detail to support that the silt curtain and boom will handle suspended materials as described.
34	Page 4-8, Section 4.4.5	The slope resulting from removal of 2 feet of sediment will result in the need to stabilize the unexcavated sediment on the mid-river side of the excavation (not adjacent to the bank). Please clarify and revise, as necessary.
35	Page 4-8, Section 4.4.5	We appreciate that additional justification was provided to support the choice to not use a sheet pile wall, but the argument is still not fully supported. Please provide more concrete information. In addition, please remove the sentence beginning, "Given the vast difference in concentrations...." This is not a valid reason to not use a sheet pile wall, though highlighting the differences between the RM 10.9 removal and the Tierra Phase 1 removal is helpful.
36	Page 4-9, Section 4.6.1	The calculations in Section 4.4 do not address river conditions outside the stated parameters, therefore the conclusions in Section 4.4 are not indicative of all possible river conditions during dredging operations, including higher than average flows. Please clarify and revise, as necessary.
37	Page 4-9, Section 4.6.1	Please explain the statement, "Monitoring for constituents other than the most significant compounds of concern could yield confusing and inconclusive results." Could the word confusing be deleted? And why were NTU, TSS and select COPCs chosen as monitoring parameters? Please clarify and revise, as necessary.
38	Page 4-9, Section 4.6.1	Please identify the "select COPCs" to be monitored and the timeframe anticipated when monitoring of parameters may be suspended when dredging activities are not occurring.
39	Page 4-9, Section 4.6.1.1	Please explain why a site specific relationship between NTU and TSS "must" be established. Revise as necessary.
40	Page 4-9, Section 4.6.1.3	Explain rationale that 4 consecutive readings at buoys 2 and 3 respectively, must be encountered for trigger and action level responses to be activated.
41	4-10, Sec 4.6.1.1	The turbidity buoys (particularly buoys 2 and 3) may need to be relocated to locations more proximate to active dredging based on site specific observations.

42	Page 4-10, Section 4.6.1.2	The second paragraph of the section states, “and turbidity will be measured continually during dredging operations at both stationary locations.” Do you mean at all 4 monitoring locations (Turbidity Buoy #1 to #4)? The section is confusing at which buoy locations will be used to establish the baseline turbidity-to-TSS relationship. Please clarify and revise, as necessary.
43	Page 4-11, Section 4.6.1.3, First Bullet	Buoy #2 is referenced in the first bullet. However, I believe it is intended to be buoy #3, as buoy #2 is upgradient of the dredge. Please clarify and revise, as necessary.
44	Page 4-11, Section 4.6.1.3, Second Bullet	Please provide an explanation as to how the determination will be made to demonstrate dredging is not the cause of a turbidity exceedance.
45	Page 4-11, Section 4.6.1.3, Second Bullet	Both 70 NTU above background and 80 NTU are cited as the action levels in the second bullet. Please clarify and revise, as necessary.
46	Page 4-11, Section 4.6.1.3, Third Bullet	The third bullet is missing a closed parenthesis “)” at the end of the sentence. Please revise.
47	Page 4-11, Table 4-6	For the continuous turbidity data, please describe how the results will be analyzed for comparison against the trigger and action levels. Please consider logging the data and averaging across 15 minute intervals. In addition, the continuous readings should be archived and analyzed at the conclusion of the removal action.
48	Page 4-11, Section 4.6.1.3	The trigger and action levels presented may be too high. NJAC 7:9B-1.14(d)13 specifies maximum 30-day average of 15 NTU and maximum 50 NTU for surface water. Please modify or provide additional justification to support the values presented.
49	Page 4-12, Section 4.6.1.4	Consider placing spill kits on all river side equipment and revise, as necessary.
50	Page 4-12, Section 4.6.2	A more robust odor monitoring plan may be needed. Please describe how odor will be measured/determined as offensive and revise the document as necessary.
51	Page 4-13, Section 4.6.3	Please add a bullet stating that equipment will not be operated if 75 dBA emission is exceeded.
52	Page 4-13, Section 4.6.3	The sentence beginning with, “This information includes dredging experience...” is confusing. Please revise.
53	Figure 4-8	Monitoring location quantities, types, and locations shown on the figure do not appear to be consistent with the design report. Please clarify and revise, as necessary.
54	Page 5-1, Section 5	Please describe the basis for the \$700 to \$900 per cubic yard estimate and provide the unit cost for sediment stabilization, transport and disposal under this work for comparison. Alternatively, you may remove the cost information.
55	Page 6-2, Table 6-1	The time to unload 250 cy barge seems slightly optimistic. Please clarify the source of the 33 min estimate and revise as necessary.
56	Page 6-2, Section 6.2.1	Based on Land Disposal Restriction requirements, waste water cannot contain more than 1% TSS. Filtering the water to reduce the amount of suspended solids and fines when off loading it from the barge to the storage tanks may make sense.

57	Page 7-1, Section 7.1	Please identify the depth of river when proposed cap will be resistant to forces from propeller scour and revise the document as necessary.
58	Page 7-1, Section 7.1	Please provide information supporting the assumption that ice scour will have a minimal impact upon the cap at the shoreline. Revise the document as necessary.
59	Page 7-4, Table 7-1	Why are higher TOCs used in this table vs. the 4.8 to 5.9% values cited in Table 3-2? The value selected should be on the low side of the mean for conservatism in pore water concentration estimation. Please clarify and revise, as necessary.
60	Page 7-7, Section 7.2.2.1	It is unclear which armor sizes and thicknesses were selected for the construction of the cap. Please clearly define the final selection and make them consistent throughout this document and the design package (specifications and figures). Currently the specification calls for 18 inches of type A armor and the figure shows 12 inches. It is also unclear what size armor and thickness were used to generate the armor volume in Table 7-5. Please clarify and revise, as necessary.
61	Page 7-8, Section 7.2.4	Was the installation of permanent sheeting in the area upstream of station 31+00 considered to allow for capping of that area? Please clarify and revise, as necessary.
62	Page 7-8, Section 7.2.4	The reference to Figure 4-1 in this section appears to be incorrect. Please clarify and revise, as necessary.
63	Page 7-8, Section 7.2.5, 2nd paragraph	Please provide support to the statement that the shape of the armored stone (angular vs. round) will not impact new habitat. How long before sediment covers the stone? Please clarify and revise, as necessary.
64	Page 7-8, Section 7.3	The text indicates that the sand gradation requirement was reduced from 0-3% to 0-1% for fine aggregates. However, Table 7-3 shows 0-11% for #200 sieve. Please clarify and revise, as necessary.
65	Page 7-11, Section 7.6.2	The proposed approach is acceptable, provided a minimum of 11 measurements are made per work area being capped, and no measured thickness value is less than 50% of the design thickness for a given layer. Please clarify and revise, as necessary.
66	Page 7-11, Section 7.6.5	The expected number of work days per week was previously stated as 6. Please clarify and revise, as necessary.
67	Figure 7-2	The Type A armor layer thickness and size is not consistent with the design report or the specification. Please clarify and revise, as necessary.

68	Pages 8-1 and 8-2, last full paragraph and subsequent bullet points	<p>The text contains confusing references to the CWA 404 permit exemption. Also, the decision tree, as currently drafted, does not appear to be consistent with how EPA requires sediment to be handled and disposed of if it exhibits a RCRA hazardous characteristic. Suggested revisions:</p> <p>In 2008, Region 2 prepared a memo to the file for the LPRSA that discussed their consideration of the Passaic River sediments pursuant to RCRA 40 CFR Section 261.31. Region 2 reviewed historical information and consulted USEPA Headquarters Office of Solid Waste, and concluded that it did not have sufficient evidence to conclude that the sediments in the Passaic River contain “listed” hazardous waste per 40 CFR 261. Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act (33 U.S.C.1344) or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) is not a hazardous waste. The New Jersey Water Quality Certification and AUD may address the transportation and disposal of this dredged material within New Jersey. However, if the sediment exhibits a characteristic of hazardous waste, it must be managed as though it were a hazardous waste. The decision tree for RM 10.9 sediment disposal is listed below:</p> <ul style="list-style-type: none"> <li>• The sediment will be disposed of as if it were “characteristic” hazardous waste if sample results analyzed per Toxicity Characteristic Leaching Procedure (TCLP – SW-846 Method 1311) for regulated constituents exceed the regulatory screening levels and if such samples are deemed to be representative of the sediment waste stream. <ul style="list-style-type: none"> <li>– If the results for one or more underlying hazardous constituents exceed 10 times the Universal Treatment Standards (UTS), then the sediment must be treated before it can be disposed of in a landfill to meet the Land Disposal Restrictions (LDR) found at 40 CFR 268. Since the sediment being removed from the RM 10.9 Removal Area contains dioxins, the only treatment currently available to achieve the standards identified in 40 CFR 268.48 is incineration.</li> </ul> </li> </ul>
69	Page 8-4	The statement that the sediment may require disposal at a RCRA Subtitle C facility “due to regulations concerning concentrations of dioxin” is not supported. If the sediment does not exhibit a RCRA characteristic, then RCRA does not require disposal in Subtitle C. If there is another regulation – perhaps a state regulation in the state where the receiving landfill is located – then it should be identified.
70	Appendix A Figures - Figures A-2a and A-2b	Looking at Figures A-2A and A-2B, locations 0343 and 0349 have 2,3,7,8-TCDD concentrations greater than 1,000 ppt, but do not appear to be included in the removal area. In addition, locations 0343, 0346, 0349 are highly elevated in the 0.5 to 1.5 foot depth interval. All 3 of these locations are just outside of the boundaries of the removal area. Please either include them, or justify why you think this is not necessary.
71	Appendix A, Figure A-2C	The data on this figure appears to be incorrect. Please revise.



72	Appendix B - Estimated Dredging Production Rate, pages 3 and 4 of 9	<ul style="list-style-type: none"> <li>The solid content (52%) seems a little high given the nature of the sample. Please provide basis for this number. Is this based on moisture content analysis of a sediment sample in the area?</li> <li>The excess water per bucket grab will vary greatly depending on the dredge operator and depth of sediment removal. Any attempt to "clean" the bottom will result in significantly more water. Please clarify if this is accounted for in the calculations.</li> <li>This section is a little confusing. If we interpret this correctly, a volume of material that could be dredged given specific constraints has been identified. Given those constraints, it would require operating at 83% "uptime" in order to hit your volume (10 hr per day available dredging time out of 12 hours would be 83% efficient). In another section a 65% dredge "uptime" average is noted, this makes more sense but does not match all the presumed constraints and assumptions for daily volumes. Please review and revise, as necessary.</li> <li>12 hour days are noted elsewhere in the document, however here, 10 hour days are referenced. Please clarify and revise, as necessary.</li> </ul>
73	Appendix B - Estimated Dredging Production Rate, page 5 of 9	The larger bucket increases the chance of a higher percentage of water. Please clarify if this has been considered and revise, as necessary.
74	Appendix B – Estimated Excess Water in Dredge Bucket, page 2 of 3	The estimated volume of sediment removed may be hard to achieve on the second and third cuts, and will likely be mostly water. Please clarify and revise, as necessary.
75	Appendix	Cross-sections from 27+00 to 28+00 show that the dredge prism does not extend to the natural bank. Please clarify.
76	Appendix C – Drawing C-4, Sheet 8 of 30	Consider including comments about protection of the known and unknown utilities. Revise as necessary.
77	Appendix C – Drawing C-8, Sheet 12 of 30	Depending on the material, maintaining the slopes shown (+/- 10:1 or greater) to the tolerances required, may be problematic. This gets more significant as the slopes increase. Please include a description of any considerations made, and revise as necessary.
78	Appendix C – Drawing C-21, Sheet 25 of 30	The note on the figure indicates the "Dock is non-existing and is available to contractors". This statement seems contradictory. Please clarify and revise, as necessary.

79	Appendix D Technical Specifications Section 01 32 00 “Construction Progress Documentation”	Page 2, Section 1.03, item A.5: It is unclear what is meant by the “use of float time disclosed or implied by use of alternate float-suppression techniques shall be shared to proportionate benefit of CH2M HILL and Contractor”. Please clarify and revise, as necessary.
80	Appendix D Technical Specifications Section 01 33 00 “Submittal Procedures”	Page 3, Section 1.03, item A: The engineer should prepare a submittal list so that both parties agree in advance what needs to be done. Please clarify and revise, as necessary.
81	Appendix D Technical Specifications Section 01 45 16, Part 1 General	Page 2, Section 1.01, item E.5: This technical specification indicates that CH2M HILL can request additional work (“Other activities determined by CH2M HILL to cause an increase or potential increase in water turbidity or other transport of contaminants”). This would be a change to the contractor and should be budgeted.
82	Appendix D, Technical Specifications Section 01 45 16 “Water Quality Monitoring and Control” – Part 1	How will CH2MHill's surface water monitoring program relate to the construction contractor's program? Who will conduct the program outlined in the main text of the design report?
83	Appendix D Technical Specifications Section 01 45 16 “Water Quality Monitoring and Control” – Part 3 Execution	The monitoring plan described in this specification is different from the design report, including buoy locations and quantities, frequency, and terminologies used. Please clarify and revise, as necessary.
84	Appendix D Technical Specifications Section 01 45 55 “Environmental Protection” – Part 1 General	<p>Page 2, Section 1.04, item A: Please define what permits CH2M HILL will obtain prior to commencement of site work, and what “additional specific permits” are the responsibility of the Contractor(s).</p> <p>Page 2, Section 1.04, item B: If CH2M HILL is providing the permits, why is a payment section needed? Why is this included in the Environmental Protection section? Please clarify and revise, as necessary.</p>

85	Appendix D Technical Specifications Section 01 45 55 “Environmental Protection” – Part 2 Execution	<p>Please provide clarification on the following items and revise the text, as necessary.</p> <ul style="list-style-type: none"> <li>• Page 7, Section 2.03, item C: Please provide more information on odor control. Depending on the location, sediments can have odor issues. Please clarify if any observations have been made in the area with regard to sediment odor. Please revise, as necessary.</li> <li>• Page 9, Section 2.04, item E.1.c: It was stated previously in this section that CH2M HILL would be obtaining all required permits. Please clarify this item that states the Contractor is responsible for obtaining waste water disposal permits. Revise as necessary.</li> <li>• Page 9, Section 2.07, item C: Please clarify and define in detail what is expected of the Contractor so there is no misunderstanding. What additional cleaning requirements are needed, and what Federal, State, and local jurisdictional office will need to be consulted.</li> <li>• Page 10, Section 2.08, item A: What is required of the Contractor with regard to the permanent and temporary pollution control facilities and devices?</li> <li>• Page 10, Section 2.10, item A: Please clarify if any groundwater is associated with this project.</li> </ul>
86	Appendix D Technical Specifications Section 01 50 10 “Safety Requirements and Protection of Property”	<ul style="list-style-type: none"> <li>• Page 1, Section 2.01: Please clarify what, if any, medical monitoring requirements exist. Revise as necessary.</li> <li>• Page 1, Section 3.01: This section should specify that this work shall be conducted over water. Please clarify and revise, as necessary.</li> </ul>
87	Appendix D Technical Specifications Section 01 51 03 “Shoreside Support Facilities” – Part 1 General	<ul style="list-style-type: none"> <li>• Page 1, Section 1.02: Depending on the permit, these may be more easily obtained by the engineer. Please clarify what is required by this item and revise as necessary.</li> <li>• Page 2, Section 1.04, item C: With the statement, “Pre-dredging will not be permitted for installation of the temporary dock,” is the contractor to assume that there is sufficient depth to allow use of the temporary dock in the area specified for all required or expected activities? Please clarify and revise, as necessary.</li> </ul>

88	Appendix D Technical Specifications Section 01 91 14 “Dredged Material Processing Related Activities” – Part 2 Dredged Material Processing	<p>Page 2, Section 2.01: This section seems very unclear. It seems difficult to fairly bid this section and obtain bids that will be comparable. Please add sufficient detail to clarify this item. Revise as necessary.</p> <p>Page 5, Section 2.03: Why is this section so different from Section 01 45 33? Please clarify and revise, as necessary.</p>
89	Appendix D Technical Specifications - Section 02 32 00 “Sediment Capping” Part 2 Products	<p>Please clarify and revise the following items, as necessary:</p> <ul style="list-style-type: none"> <li>• Page 3, Section 2.01: Please make correction to the table and the footnote regarding the percent of fine aggregate passing #200 sieve. It should be 0 to 1%, not 0 to 11%.</li> <li>• Pages 5 and 6, Section 2.03 Tables: Please revise tables to include footnotes and/or units. As presented, the tables are confusing.</li> <li>• Page 7, Section 2.05, item B: Please clarify and correct the following statement, if applicable: “Contractor must receive the approval from the Contractor prior to delivery and placement of sand.” Should the word “Contractor” be replaced with CH2M HILL?</li> </ul>
90	Appendix D Technical Specifications - Section 02 32 00 “Sediment Capping” Part 3 Execution	<p>Please clarify and revise the following items, as necessary:</p> <ul style="list-style-type: none"> <li>• Page 7, Section 3.01, item D1: These tolerances are going to be difficult to hit and verify consistently on an uneven underwater surface. Please clarify how this will be achieved and revise, as necessary.</li> <li>• Page 7, Section 3.01, item D2: Please clarify and correct the following statement, if applicable: “Placement tolerances will be monitored and verified by the Contractor after each material is placed.” Should the word “Contractor” be replaced with CH2M HILL?</li> <li>• Page 8, Section 3.01, item E2: Should “CH2M HILL” be used instead of “Engineer” in this paragraph? The term “Engineer” was not used before. Please clarify and revise, as necessary.</li> <li>• Page 9, Section 3.04, item A: It will be difficult to place and level the armor stone on top of the geotextile fabric at the tolerances indicated. Please clarify precisely how this will be accomplished and revise, as necessary.</li> <li>• Page 9, Section 3.04, item B: This item is confusing and awkward as written. Please clarify and revise, as necessary.</li> </ul>

91	Appendix D Technical Specifications - Section 31 23 34 1“Dredging and Delivery Part 1 General	<ul style="list-style-type: none"> <li>• Page 1, Section 1.01, item B.3: This item is not part of the delivery and should not be listed as a bullet under delivery. Please clarify and revise, as necessary.</li> <li>• Page 6, Section 1.06, item A.1.f: This item must be consistent with the other QC requirements. Please clarify and revise, as necessary.</li> </ul>
92	Appendix D Technical Specifications - Section 31 23 34 “Dredging and Delivery Part 2 Products	<ul style="list-style-type: none"> <li>• Page 12, Section 2.01, item A.1: Please confirm the production rate matches the quantities reported in the remainder of the document. Revise as necessary.</li> <li>• Page 13, Section 2.01, item A.4.a.2: With a vertical tolerance of minus 4 inches for the dredge, it is questionable that the Contractor can achieve an allowable overdredge of no more than 4 inches. Please clarify and revise, as necessary.</li> <li>• Page 13, Section 2.01, item A.6: Please insert the word NOT to correct the statement to read “use of spud anchors are acceptable for the dredge or barge equipment as long as their use does <u>NOT</u> result in non compliance of the water quality criteria.”</li> <li>• Page 14, Section 2.04, item A: Given the sensitive nature of the work, a redundant silt curtain may be warranted.</li> </ul>
93	Appendix K Cap LTM Plan, Page 2- 1, Section 2.1	Please clarify if there has been any consideration of the removal of habitat for benthic organisms with the Armor layer on top of the geotextile? Please revise as necessary.
94	Appendix K Cap LTM Plan, Page 2- 1, Section 2.1	Is there a contingency plan in place if the geotextile layer is uncovered, comes loose, or becomes a navigational hazard? Is the geotextile going to be anchored as well as covered? Please clarify and revise, as necessary.
95	Appendix K Cap LTM Plan, Page 3- 1, Section 3.2.1	Conducting monitoring directly after construction should be considered to establish baseline conditions. Please clarify and revise, as necessary.
96	Appendix K Cap LTM Plan, Page 6- 1, Section 6.1	Any cap erosion or identified chemical breakthrough should trigger increased cap monitoring frequency. Please clarify and revise as necessary.
97	1Appendix L 2	There does not appear to be sufficient detail provided to evaluate the scope or timelines presented. Please clarify and revise, as necessary.